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Mr. Steven Olea
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Re: Docket Nos. G-04204A-06-0463, G-04204A-06-0013 and G-04204A-05-0831
Decision No. 70011 (November 27, 2007)

Mr. Olea,

Pursuant to ACC Decision No. 70011 UNS Gas, Inc. ("UNS Gas") is required to submit semi-annual Demand-Side Management ("DSM") program progress reports on March 1st and September 1st of each year in accordance with Commission Staff's recommendations. Enclosed please find UNS Gas' Semi-Annual DSM Program Progress Report for the reporting period of January 1 through June 30, 2011. The marketing materials for the reported DSM programs are being filed directly with Commission Staff on the attached CD.

On April 4, 2011 UNS Gas filed its Energy Efficiency Implementation Plan wherein UNS Gas requested that this reporting requirement be superseded by the reporting requirement in A.A.C. R14-2-2509. The Commission has yet to approve UNS Gas' Implementation Plan; therefore, UNS Gas is submitting this report in compliance with Decision No. 70011 and R14-2-2409.

If you have any questions, please contact me at (520) 884-3680.

Sincerely,

[Signature: Jessica Bryne]

Jessica Bryne
Regulatory Services

Enclosures: Report and CD

cc: Docket Control, ACC
Julie McNeely-Kirwan, ACC (with CD)
Compliance Section, ACC

UNS Gas, Inc.

Semi-Annual Demand-Side Management Programs Progress Report

January through June 2011

UNS GAS, INC.
SEMI-ANNUAL DSM PROGRESS REPORT FOR THE PERIOD:
January through June 2011

This progress report includes the following information for all UNS Gas, Inc. ("UNS Gas") Demand-Side Management ("DSM") Programs that were in place from January through July 2011 including programs for residential, non-residential, and low-income customers:

- a brief description of the programs;
- program modifications;
- program goals, objectives, and savings targets;
- levels of participation;
- description of evaluation and monitoring activities and results;
- kW, kWh, and therm savings;
- problems encountered and proposed solutions;
- costs incurred during the reporting period disaggregated by type of costs, such as administrative, rebate, and monitoring;
- findings from all research projects;
- terminated programs; and
- other significant information.

A summary detailing all DSM expenses by program is provided in Table 1; energy savings by program are provided in Table 2; cumulative energy savings as a comparison to the Gas Utility Energy Efficiency Standards are provided in Table 3; societal benefits by program are provided in Table 4; lifetime environmental savings by program are provided in Table 5; a summary of participants, year to date expenses, and the yearly budget by program are provided in Table 6; and savings and expenses by program since inception are provided in Table 7.

UNS GAS, INC.
SEMI-ANNUAL DSM PROGRESS REPORT FOR THE PERIOD:
January through June 2011

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Table 1

DSM PROGRAM EXPENSES: JANUARY - JUNE 2011

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation	Program Marketing	Planning & Admin	Measurement, Evaluation & Research	Program Total Cost
Residential Programs								
Low-Income Weatherization	\$ 149,704	\$ 456	\$ -	\$ 1,783	\$ -	\$ 8,987	\$ 33	\$ 160,964
Energy Smart Homes	\$ -	\$ 2,721	\$ 1,716	\$ 16,746	\$ 1,696	\$ 1,561	\$ 764	\$ 25,204
Efficient Home Heating	\$ 97,675	\$ 9,021	\$ 3,919	\$ 27,473	\$ 6,725	\$ 8,637	\$ 1,235	\$ 154,686
Existing Home Program	\$ -	\$ 4,731	\$ 2,556	\$ 66,160	\$ 327	\$ 6,046	\$ -	\$ 79,821
Residential Financing Program	\$ -	\$ 16	\$ -	\$ 11,115	\$ -	\$ 985	\$ -	\$ 12,116
Total for Residential Programs	\$ 247,379	\$ 16,946	\$ 8,191	\$ 123,278	\$ 8,748	\$ 26,216	\$ 2,032	\$ 432,791
Commercial Programs								
C&I Facilities Gas Efficiency	\$ 5,163	\$ 1,443	\$ 2,251	\$ 10,896	\$ -	\$ 1,485	\$ 5,350	\$ 26,587
Total for Commercial Programs	\$ 5,163	\$ 1,443	\$ 2,251	\$ 10,896	\$ -	\$ 1,485	\$ 5,350	\$ 26,587
Portfolio Totals	\$ 252,542	\$ 18,389	\$ 10,443	\$ 134,174	\$ 8,748	\$ 27,701	\$ 7,382	\$ 459,378

Program Costs	\$ 459,378
Program Development, Analysis, & Reporting Software	\$ 124,253
Baseline Study	\$ 7,046
TOTAL	\$ 590,678

Definitions

Rebates & Incentives – total amount spent on customer rebates, incentives, and installation of low-income weatherization.

Training and Technical Assistance – total amount spent on energy efficiency training and technical assistance. Training may be for utility employees or contractors.

Consumer Education – total dollars used to support general consumer education about energy efficient improvements.

Program Implementation – program delivery costs associated with implementing programs including implementation contractor labor and overhead costs, as well as other direct program delivery costs.

Program Marketing – includes all expenses related to marketing programs and increasing DSM consumer awareness (direct program marketing costs as opposed to general consumer education).

Planning and Administration – costs to plan, develop, and administer programs including management of program budgets, oversight of the request for proposal (“RFP”) process, oversight of implementation contractors, program development, program coordination, and general overhead expenses.

Measurement, Evaluation, and Research (“MER”) – identification of current baseline efficiency levels and the market potential of DSM measures; process evaluations; verification of installed energy efficient measures; tracking of savings; and identification of additional energy efficiency research.

Program Development, Analysis, and Reporting Software – costs to research and develop new DSM program opportunities, provide analysis of new programs and measures, and develop a database to track participation, savings, and benefits. These costs are essential to comply with reporting and rules requirements.

Baseline Study – expenditures for a separate UNS Gas Baseline Study approved in Arizona Corporation Commission Decision No. 71107 (June 5, 2009).

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Table 2
DSM ENERGY SAVINGS: JANUARY – JUNE 2011¹

DSM Program	Capacity Savings MW	Annual MWh Savings	Annual Therm Savings	Lifetime MWh Savings	Lifetime Therm Savings
Low-Income Weatherization	0.00	192	9,237	3,358	47,040
Energy Smart Homes	0.00	0.0	450	0	13,513
Efficient Home Heating	0.00	0.0	54,673	0	1,093,469
Existing Home Program	0.00	0.0	348	0	3,483
C&I Facilities Gas Efficiency	0.00	0.0	823	0	16,452
Portfolio Totals	0.00	192	65,532	3,358	1,173,957

Table 3
CUMULATIVE DSM SAVINGS: JANUARY – JUNE 2011

Year	Retail Energy Sales (Therms)	Incremental Annual Energy Savings (Therms)	Cumulative Annual Energy Savings (Therms)	Cumulative Annual Savings as a % of previous year Retail Sales	Cumulative EE Standard
2010	140,222,684				
2011		65,532	65,532	0.05%	0.50%

Table 4
DSM SOCIETAL BENEFITS: JANUARY – JUNE 2011

DSM Program	Societal Benefits	Societal Costs	Net Benefits
Low-Income Weatherization*	\$ 157,416	\$ 157,416	\$ -
Energy Smart Homes	\$ 17,395	\$ 67,505	\$ (50,110)
Efficient Home Heating	\$ 691,064	\$ 266,439	\$ 424,625
Existing Home Program	\$ 3,787	\$ 85,276	\$ (81,488)
C&I Facilities Gas Efficiency	\$ 10,397	\$ 24,066	\$ (13,668)
Portfolio Totals	\$ 880,060	\$ 600,702	\$ 279,358

**Consistent with Commission Staff's analysis in Commission Decision No. 70180 (February 27, 2008), the societal benefits for low-income weatherization are equal to or greater than the societal costs when taking the environmental benefits into account.*

¹ Annual therm savings for Low Income Weatherization reflect the addition of available credit for therm equivalents per A.A.C. R14-2-2501.39 and R14-2-2504.A.

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Table 5

DSM LIFETIME ENVIRONMENTAL SAVINGS: JANUARY – JUNE 2011

DSM Program	Lifetime SO _x Reduction (lbs)	Lifetime NO _x Reduction (lbs)	Lifetime CO ₂ Reduction (lbs)	Lifetime Water Reduction (gallons)
Low-Income Weatherization	2,458	7,941	3,398,622	734,269
Energy Smart Homes	0	0	159,457	0
Efficient Home Heating	0	0	12,902,932	0
Existing Home Program	0	0	41,094	0
C&I Facilities Gas Efficiency	0	0	194,133	0
Portfolio Totals	2,458	7,941	16,696,238	734,269

Table 6

DSM SUMMARY OF PARTICIPATION AND EXPENSES: JANUARY – JUNE 2011²

DSM Program	Participants	# Measures	Expenses YTD	2011 Budget
Residential Programs				
Low-Income Weatherization	84	84	\$ 160,964	\$ 206,000
Energy Smart Homes	3	3	\$ 25,204	\$ 218,375
Efficient Home Heating	317	328	\$ 154,686	\$ 327,818
Existing Home Program	15	15	\$ 79,821	\$ 749,327
Residential Financing Program	0	NA	\$ 12,116	\$ 750,000
Total for Residential Programs	419	430	\$ 432,791	\$ 1,501,520
Commercial Programs				
Commercial Facilities Efficiency	2	4	\$ 26,587	\$ 218,545
Total for Commercial Programs	2	4	\$ 26,587	\$ 218,545
Portfolio Totals	421	434	\$ 459,378	\$ 1,720,065

² UNS Gas provides this table to comply with A.A.C. R14-2-2509.B

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Table 7

DSM SAVINGS & EXPENSES SINCE PROGRAM INCEPTION: JANUARY 1992 – JUNE 2011

DSM PROGRAM	Start Date	Program Participants		Program Expenses		MWh Savings			Therm Savings		
		Jan - Jun	Program Inception to Date	Jan - Jun	Program Inception to Date	Jan - Jun	Total Annual ^a	Program Inception to Date ^b	Jan - Jun	Total Annual ^a	Program Inception to Date ^b
Low-Income Weatherization ^c	2007	84	385	\$ 160,964	\$ 613,413	192	393	650	9,237	42,516	152,065
Energy Smart Homes	2008	3	15	\$ 25,204	\$ 407,619	0	9	22	450	7,562	18,948
Efficient Home Heating	2008	317	1,193	\$ 154,686	\$ 650,631	NA	NA	NA	54,673	204,101	444,517
C&I Facilities Gas Efficiency	2008	2	25	\$ 26,587	\$ 303,400	NA	NA	NA	823	42,516	152,065
Existing Home Program	2011	15	15	\$ 79,821	\$ 79,821	NA	NA	NA	348	348	348
Residential Financing Program	2011	0	0	\$ 12,116	\$ 12,116	NA	NA	NA	0	0	0
Program Development, Analysis, & Reporting Software Baseline Study	2009	NA	NA	\$ 124,253	\$ 456,720	NA	NA	NA	NA	NA	NA
TOTAL		421	1,633	\$ 590,678	\$ 2,663,720	192	402	672	65,532	297,044	767,943

a. Total savings for current year for all energy efficiency measures installed since program inception.

b. Total savings for all years for all energy efficiency measures installed since program inception.

c. Therm savings for Low Income Weatherization reflect the addition of available credit for therm equivalents per A.A.C. R14-2-2501.39 and 14-2-2504.A.

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UNS GAS LOW-INCOME WEATHERIZATION PROGRAM

Description

The UNS Gas Low-Income Weatherization ("LIW") Program is designed to improve the energy efficiency of homes for customers whose income falls within the defined federal poverty guidelines. Steps taken in this Program will reduce gas and electric bills for eligible customers; improve comfort and quality of life. Energy savings realized from the LIW Program will allow low-income customers to better utilize the limited income they receive for other necessary items such as rent, food, or medical expenses.

Program Modifications

There were no Program modifications during this reporting period.

Program Goals and Objectives

- Increase the number of homes weatherized each year;
- Lower the average household utility bills of low-income customers by utilizing energy conservation measures in the weatherization process; and
- Improve the quality of life for the customers by providing them with a safe and healthy home.

The 2011 goal is to weatherize 125 homes.

Level of Participation

A total of 84 households received weatherization assistance during this reporting period.

Evaluation and Monitoring Activities and Results

The Arizona Energy Office ("AEO"), with billing data from UNS Gas and other Arizona gas and electric utilities, is analyzing and tracking energy use in weatherized homes statewide. As their database grows, a more accurate analysis of the impact of weatherization activities will emerge. UNS Gas will report energy savings from weatherization activities based upon the most recent AEO report. The AEO does not report any kW demand savings. The AEO report is include in Appendix 2.

The most recent AEO report from July 2011 is summarized below:

Utility Bill Analysis

- To date, an analysis of 235 homes has been completed on homes utilizing Arizona Public Service Company ("APS"), Tucson Electric Power Company, UNS Gas, UNS Electric, Inc. ("UNS Electric"), and Southwest Gas Corporation utility data. This analysis is ongoing, and new data will be updated to these values on a quarterly basis.
- Savings to Investment Ratios ("SIR") are provided for total investment from all funding spent (diagnostics, energy measures, health and safety measures) and for energy related measures only (diagnostics and energy measures).
- Present value is based on 17.5 years measure life, discount rate of 3% and a utility cost escalation rate of 3%.
- The combined SIR of all jobs reviewed to date for funds spent on diagnostics, energy measures, and health and safety measures was 1.19. Health and saving represented 13% of expenditures.

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- The combined SIR of all jobs reviewed to date for funds spent on energy measures and diagnostics was 1.35.
- The average saving per home reviewed was 2,667 kWh and 32 therms of natural gas (gas therms average includes all electric homes).

kW, kWh, and Therm Savings

The savings for this reporting period are listed below:

No. of Homes	kW savings	kWh savings	Therm savings ^a
84	0.0	191,887	9,237

a. Includes available credit for therm equivalents per A.A.C. R14-2-2501.39 and R14-2-2504.A.

kWh savings are adjusted for line losses of 10.69%.

Problems Encountered and Proposed Solutions

There were no additional problems encountered for this reporting period.

Costs Incurred

Costs incurred for the LIW Program during the reporting period are listed below:

DSM Program	Rebates & Incentives ^a	Training & Technical Assistance	Consumer Education	Program Implementation	Program Marketing	Planning & Admin	Measurement, Evaluation & Research	Program Total Cost
Low Income Weatherization	\$ 149,704	\$ 456	\$ -	\$ 1,783	\$ -	\$ 8,987	\$ 33	\$ 160,964

a. Includes \$4,648 for health and safety related repairs and \$8,792 for Weatherization Agencies administration expenses.

Findings from All Research Projects

No research projects were performed during this reporting period.

Other Significant Information

The Coconino County Community Services (“CCCS”) Program Director hired in 2010 is no longer working on the LIW program. They currently have another employee working part time with LIW. As of this reporting period, UNS Gas has not received any information regarding the status of a permanent position within CCCS for LIW. Other than the seven homes started in late December 2010, that were completed in February 2011, CCCS has not submitted any additional jobs.

Northern Arizona Council of Governments (“NACOG”) spent their entire annual budget in the first half of 2011 – weatherizing 58 homes. They asked for and received additional funding of \$25,000 to continue weatherizing homes through the second half of 2011. All agencies are expected to utilize their funding by year end.

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UNS GAS ENERGY SMART HOMES PROGRAM

Description

The Residential New Construction Program for UNS Gas is marketed under the Energy Smart Homes ("ESH") name. The ESH Program emphasizes the whole-house approach to improving health, safety, comfort, durability, and energy efficiency. The ESH Program promotes homes that meet the Environmental Protection Agency ("EPA")/Department of Energy ("DOE") Energy Star® Home performance requirements. To encourage participation, the ESH Program provides incentives to homebuilders for each qualifying home. Required on-site inspections and field testing of a random sample of homes to meet Energy Star® Home performance requirements are conducted by third-party RESNET® certified energy raters selected by each builder. Components of ESH include development of branding, builder training curriculum, and marketing collateral.

UNS Gas received Commission approval to redesign the ESH Program in Decision No. 72023 (December 10, 2010). The Program, as redesigned, is now a Joint Utility Residential New Construction Program. The Program works in cooperation with electric service providers, which offers builders the option to earn incentives from both applicable utilities. To earn the Joint Utility Energy Star® Home Certification, a participating builder would first contract with either APS or UNS Electric. Certified homes can qualify for additional incentives from UNS Gas by including higher efficiency gas-fired furnaces and water heaters. Key changes from the original Program design include: increased minimum furnace efficiency from 90 AFUE to 95 AFUE; increased minimum water heater efficiency from 0.58 EF to 0.62 EF; and builder incentives of \$200 per home for meeting Energy Star® and UNS Gas high efficiency equipment standards.

Program Modifications

The program continues to be supported by Company staff in the Mohave County area. Additional resources have also been allocated to enhance builder recruitment. The originally planned full-time account representative is still deemed non cost-effective, due to low participation and production. This continues to help keep program costs down. The three homes completed this period were all participants in the Joint Utility ESH Program and additional homes are anticipated in 2011.

Program Goals, Objectives, and Savings Targets

- Work with local builders to construct energy efficient homes;
- educate consumers on the benefits of Energy Star® Homes;
- promote builders who provide Energy Star® Homes that include high efficiency furnaces and water heaters;
- train builder construction staff and subcontractors in advanced building science concepts to increase energy efficiency through improved design and installation practices;
- transform the market and improve construction practices in the UNS Gas service territory;
- reduce peak demand and overall energy consumption in new homes;
- stimulate construction of new homes that are inspected and tested to assure energy performance;
- assist builder sales agents with promoting and selling energy-efficient homes; and
- increase homebuyer awareness and understanding of energy-efficient building practices and the benefits of purchasing an energy efficient home.

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The goal for 2011 is to capture 15% of the new home market.

Levels of Participation

The UNS Gas service territory continues to be challenging for this Program due to a limited real estate market and local homebuilders previous participation with APS' Energy Star® New Home program. However, the Program currently has 12 builders participating: Architectural Design Studio; Builder's Showcase; C & B Custom Homes; Georgia DelGaudio; Dell Creek Construction; Energy Wise Homes; Faculty Training Group; Harmony Builders; JB Edwards; Cindy Perin; Pena Enterprises; and Steve Homes Building Construction. Unfortunately, participating builders are building very slowly, especially in the more rural areas. There were three homes completed during this reporting period.

Evaluation and Monitoring Activities and Results

Navigant Consulting performed an evaluation of this program for 2010. The evaluation resulted in a realization rate of 72% for energy savings. 2011 savings have been updated as a result of the 2010 evaluation. This report is included in Appendix 2.

kW, kWh, and Therm Savings

Measure Category	No. of Homes	kW savings	kWh savings	Therm savings
Tier 1	0	0	0	0
Tier 2	1	0	0	97
Tier 3	2	0	0	354
Total	3	0	0	450

As a component of the Joint Utility Program, UNS Gas will only claim the therm savings, and the electric service provider will claim the electric savings for all participating homes.

Problems Encountered and Proposed Solutions

Builder recruitment in the UNS Gas service territory remains sluggish, but the Joint Utility Program offering is showing signs of improved participation. APS and UNS Gas program staff are working together to bring this to active builders in the marketplace.

Costs Incurred

Costs incurred for the ESH Program during the reporting period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation ^a	Program Marketing	Planning & Admin	Measurement, Evaluation & Research	Program Total Cost
Energy Smart Homes	\$ -	\$ 2,721	\$ 1,718	\$ 16,746	\$ 1,696	\$ 1,561	\$ 764	\$ 25,204

a. Includes \$13,522 paid to CSG, the IC.

Findings from All Research Projects

No research projects were undertaken during this reporting period.

Other Significant Information

The new home market is seeing positive growth in the Prescott and Prescott Valley areas. These areas are not currently served by program participating raters for UNS Gas or APS. Focusing on rater recruitment to serve Prescott and Prescott Valley will be a sound program strategy through the remainder of 2011.

No new marketing materials were produced during this reporting period.

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UNS GAS EXISTING HOMES RETROFIT AND RESIDENTIAL ENERGY ASSESSMENT PROGRAM

Description

The UNS Gas Existing Homes Retrofit Program ("Program") is designed to encourage homeowners to increase the energy efficiency of their homes. The Program provides incentives for high-efficiency heating equipment, water heaters, sealing leaky duct work, installing insulation and air sealing. The Program provides direct incentives to participating contractors with the requirement that the incentives are passed on to utility customers as a line item credit toward approved Program measures. Along with the direct incentives UNS Gas provides Building Performance Institute ("BPI") and Program administrative training and mentoring to the contractors to help them meet the Program requirements.

The Residential Energy Assessment Program ("REAP") is an integral component of the Program. The major components of the REAP include a home energy assessment (or "audit"); a general appliance assessment; and installation of up to three faucet aerators and one low flow showerhead per home. Education regarding behavioral changes, other UNS Gas efficiency programs, rate options, and contact information to assist with questions are provided during the assessment. The assessment will also provide the homeowner information regarding possible energy savings by participating in other components of the Program, as described above.

The Program received Commission approval on December 10, 2010, in Decision No. 72045, and the REAP received Commission approval on January 6, 2011 in Decision No. 72056. While contained in separate Decisions, the Programs are designed to complement each other and are administered and reported as a single Program. The Program is marketed to the public as the BrightSave Home Program, and replaces the previous Efficient Home Heating Program.

UNS Gas conducted an RFP process to select an Implementation Contractor ("IC") and Conservation Services Group ("CSG") was the successful bidder.

Program Modifications

Upon the initial public launch of the REAP in May 2011 several new homes, including some very large homes (one listed at 31,000 square feet), requested audits. In response new Program participation qualifications were instituted with the goal of reducing the number of audits being performed where little efficiency could be gained and/or the home size exceeded the programs economic model & technical parameters. The additional qualifications added are as follows:

- Homes must be constructed in or prior to 2005 to avoid testing the most energy efficient homes in the service territory. Homes built after 2005 may still be eligible for a REAP audit when referred as a "high bill" customer that may be experiencing atypical energy use due to acute design, equipment, or other issues.
- Homes may not exceed 3,500 square feet in conditioned floor area. This size designation was established to align with the Program's economic model which affords each audit be performed by a single auditor in a half-day increment. Homes over 3,500 square feet require either a full day to audit and/or multiple auditors to staff, significantly increasing the cost of the audit and significantly reducing the cost effectiveness. An additional technical consideration with some very large homes is that their heating and hot water systems often utilize commercial equipment outside the expertise of residentially trained technicians.

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The following modifications and additions to incentivized retrofit measures have also been instituted:

- Incentive schedule for High Efficiency Gas Furnaces revised to read ≥ 92 AFUE = \$330 and ≥ 95 AFUE = \$550; and
- air sealing and insulation credit for installing vertical insulation in the thermal plane of insulated attic spaces including knee-walls and skylight shafts.

UNS Gas officially ended the Residential Efficient Home Heating Program May 1, 2011. The contractors were given until May 31, 2011 to complete scheduled jobs and to submit all required paperwork for the participant rebates.

Program Goals and Objectives

The objectives of the Existing Homes Retrofit component of the Program are as follows:

- The proper sizing and installation of high efficiency gas furnaces and water heaters, sealing leaky ductwork, air sealing, and the installation of insulation in conjunction with air sealing.
- advance the building science skills of participating contractors leading to BPI certification; and
- achieving designation as a Home Performance with Energy Star participating program.

The objectives of the Energy Assessment component of the program are as follows:

- Assess how much energy a home is using and what measures can be taken to improve efficiency;
- install up to three (3) faucet aerators and one (1) showerhead; and
- educate homeowners about applicable UNS Gas rebates and simple behavioral modifications to increase energy efficiency.

The 2011 program goals are:

Retrofit Measure	Goal
≥ 92 AFUE High Efficiency Furnace (New/Replacement)	250
≥ 95 AFUE High Efficiency Furnace (New/Replacement)	200
Duct Sealing- Prescriptive	100
Duct Sealing- Performance	40
Air Sealing and Attic Insulation	100

Energy Assessment Measure	Goal
Audits	500
Direct install- Faucet Aerators`	1,500
Direct install- Low flow Showerhead	500

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Level of Participation

Efficient Home Heating

328 furnaces were installed during this reporting period at an average incremental cost of \$643. Details on installations per AFUE and capacity, as well as incremental costs per capacity are listed below:

↓ Capacity AFUE →	Quantity by Furnace Capacity & AFUE						Totals	Incremental Cost by Capacity
	90	92	93	94	95	95.5		
>0 - 60,000 Btu	0	3	0	1	27	5	36	\$696.88
60,001 - 100,000 Btu	2	31	0	1	181	19	234	\$640.76
>100,000 Btu	1	7	1	2	39	8	58	\$592.82
Totals	3	41	1	4	247	32	328	

BrightSave Home

Sixteen (16) contractors were recruited into the Program; nine of which have achieved the BPI certification of participating staff. Fifteen (15) audits were performed.

Evaluation and Monitoring Activities and Results

UNS Gas will adopt a strategy that calls for integrated data collection, which is designed to provide a quality data resource for Program tracking, management and evaluation. This approach will entail the following primary activities:

- Database management: As part of Program operation, UNS Gas will collect the necessary data elements to populate the tracking database and provide periodic reporting.
- Integrated implementation data collection: UNS Gas will establish systems to collect the data needed to support effective Program management and evaluation through the implementation and customer application processes. The database tracking system will be integrated with implementation data collection processes.
- Field verification: UNS Gas and/or the MER contractor will conduct field verification of the installation of a sample of measures throughout the implementation of the Program.
- Tracking of savings using deemed savings values: UNS Gas will develop deemed savings values for each measure and technology promoted by the Program and the MER contractor will periodically review and revise the savings values to be consistent with Program participation, and accurately estimate the savings being achieved by the Program.

kW, kWh, and Therm Savings

Efficient Home Heating

No. of Furnaces	kW savings	kWh savings	Therm savings
328	NA	NA	54,673

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BrightSave Home

Measure	Units	Annual Therms	Lifetime Therms
Air Sealing	0	0	0
Duct Testing & Repair	0	0	0
Early Retirement	0	0	0
Replace on Burnout	0	0	0
Shade Screens	0	0	0
Energy Audits	15	348	3,483
Totals	15	348	3,483

Problems Encountered and Proposed Solutions

The use of CSG's sophisticated Energy Measures software to refine energy saving estimates and performance testing has introduced an adaptation period during which refinements to conform to program requirements and regional climate are ongoing. In addition, work is ongoing to calibrate the software's energy saving calculation models. UNS Gas anticipates the software refinements and calibrations to be complete later this year.

Costs Incurred

Costs incurred for this Program during the reporting period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation ^a	Program Marketing ^b	Planning & Admin	Measurement, Evaluation & Research	Program Total Cost
Efficient Home Heating	\$ 97,675	\$ 9,021	\$ 3,919	\$ 27,473	\$ 6,725	\$ 8,637	\$ 1,235	\$ 154,686

a. Includes \$17,867 paid to KEMA, the IC for processing rebates.

b. Includes \$6,725 in contractor rebates.

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation ^a	Program Marketing	Planning & Admin	Measurement, Evaluation & Research	Program Total Cost
Existing Home Program	\$ -	\$ 4,731	\$ 2,556	\$ 66,160	\$ 327	\$ 6,046	\$ -	\$ 79,821

a. Includes \$9,554 paid to CSG, the IC.

Other Significant Information

The timeline of key events during Program planning and launch is as follows:

November 2010	Final Implementation Contractor interviews conducted
December 2010	Letter of Intent issued to Conservation Services Group awarding contract as program implementation contractor
January 2011	Program staff hiring, BPI training and field certification
March 2011	REAP software, CSG's Energy Measure Home, completes UniSource Information Services and Security technical screening
March 2011	Program Launch for Contractors
April 2011	First UNS Gas Contractor BPI Training

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May 2011	Phase in of BrightSave Home incentives, phase out of Efficient Home Heating Program incentives
May 23, 2011	Official media launch of REAP audits
June 2011	Efficient Heating Program officially closed

In July of 2011 UNS Gas will submit an application for the Program to become Home Performance with Energy Star certified. UNS Gas expects to achieve certification in August of 2011.

A list of new marketing materials is shown in Appendix 2 and available on the attached CD.

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UNS GAS ENERGY EFFICIENCY RESIDENTIAL FINANCING PILOT PROGRAM

Description

The UNS Gas Energy Efficiency Residential Financing Pilot Program ("Program") offers loans to residential customers in the UNS Gas service territory who own their own home and who wish to install eligible energy efficiency measures. The EERFP Program supports cost-effective residential energy efficiency measure approved by the Commission, and helps expand the number of residential customers who participate in energy efficiency programs by allowing customers to pay the up-front costs over time.

The Program was approved by the Commission in Decision No. 72062 (January 6, 2011).

Program Modifications

There are no Program modifications during this reporting period.

Program Goals and Objectives

Level of Participation

There were no participants during this reporting period.

Evaluation and Monitoring Activities and Results

UNS Gas will adopt an integrated data collection strategy designed to provide a quality data resource for Program tracking, management, and evaluation. This approach will entail the following primary activities:

- Database management: As part of Program operation, UNS Gas will request the lender to provide the necessary data elements to populate the tracking database and provide periodic reporting.
- Data collection: UNS Gas will establish systems to collect the data needed to support effective Program management, transfer of funds from UNS Gas to the loan loss reserve accounts, reporting, and evaluation.

kW, kWh, and Therm Savings

There are no savings associated with this Program.

Problems Encountered and Proposed Solutions

During this reporting period UNS Gas encountered difficulties securing a final contract agreement with the Program's anticipated lending partner. As a consequence, and after discussions with Pima County Interfaith Council, UNS Gas has begun pursuing an alternate agreement with a local lender. UNS Gas anticipates a final agreement to be reached during the fourth quarter of 2011.

Costs Incurred

Costs incurred for this Program during the reporting period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation	Program Marketing	Planning & Admin	Measurement, Evaluation & Research	Program Total Cost
Residential Financing Program	\$ -	\$ 16	\$ -	\$ 11,115	\$ -	\$ 985	\$ -	\$ 12,116

Other Significant Information

There is no other significant information to report

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UNS GAS C&I FACILITIES GAS EFFICIENCY PROGRAM

Description

The Commercial and Industrial ("C&I") Facilities Gas Efficiency Program is designed to promote the installation of high-efficiency, gas-fueled equipment and systems at existing commercial and industrial facilities within the UNS Gas service area.

Program Modifications

No modifications were made to the Program during this reporting period. On September 2, 2009, UNS Gas submitted a greatly expanded Program re-design for Commission approval. This Program re-design was eventually replaced on April 4, 2011 with the 2011-2012 UNS Gas Energy Efficiency Implementation Plan.

Program Goals and Objectives

- Help commercial and industrial customers reduce and manage their energy costs;
- reduce greenhouse gas emissions; and
- lower overall rates and energy costs compared to other resource options.

Level of Participation

Two new applications were received during this reporting period, and UNS Gas paid rebates totaling \$1,400 to these two participants.

Evaluation and Monitoring Activities and Results

Navigant Consulting performed an evaluation of this Program for 2010. The evaluation resulted in a realization rate of 101% for energy savings. 2011 savings have been updated as a result of the 2010 evaluation. This report is included in Appendix 2.

kW, kWh, and Therm Savings

Measure	No. Installed	Therm Savings	Incremental Cost
High-Efficiency Furnaces	4	823	\$ 660.27

Problems Encountered and Proposed Solutions

The following issues are contributing to reduced Program participation:

- First cost is extremely important to businesses today. Buying the least expensive product is common practice rather than spending more for higher energy efficiency.
- The current economic climate is forcing businesses to reduce spending when possible, so there is little demand from businesses for energy efficient gas-fired equipment due to increased incremental costs.
- Suppliers typically don't carry inventory of energy efficient gas-fired equipment due to lack of demand.

To help increase participation, KEMA hired an Outreach Representative for their team. This person contacts customers directly and helps them determine which measures are best suited for their participation. The Outreach Representative is also heavily involved in marketing the Program through presentations and outreach events.

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Costs Incurred

Costs incurred for the C&I Facilities Program during the reporting period are listed below:

DSM Program	Rebates & Incentives ^a	Training & Technical Assistance	Consumer Education	Program Implementation ^b	Program Marketing	Planning & Admin	Measurement, Evaluation & Research	Program Total Cost
C&I Facilities Gas Efficiency	\$ 5,163	\$ 1,443	\$ 2,251	\$ 10,896	\$ -	\$ 1,485	\$ 5,350	\$ 26,587

a. Includes 3,763 paid in January 2011 for measures installed and reported in 2010.

b. Includes \$1,605 paid to KEMA, the IC.

Other Significant Information

Presentations were made to numerous groups during this reporting period, including:

- City of Nogales;
- Santa Cruz County;
- Show Low Schools;
- Coconino Community College;
- Little Colorado Hospital;
- Winslow Unified School District;
- Flagstaff Unified School District;
- Verde Valley Hospital;
- Nogales Unified School District;
- Nogales Zoning & Building Department and Inspectors;
- Town of Taylor Building Officials and the City Financial Manager;
- Facilities staff of Mohave County;
- Northern Arizona University Facilities Staff and Director of Utilities; and
- Northern Arizona Builders Association.

UNS Gas also staffed a booth at the Creative Energy Fair and the Prescott Builders Association Fair, both in Prescott, Arizona.

Given the limited budget and the vastness of the service area, the marketing emphasis is on the sales and distribution channels of qualifying equipment. Promotion among UNS Gas employees is ongoing as these employees interface with customers on a daily basis. A listing of registered commercial contractors in the UNS Gas service area has also been developed.

There were 1,230 hits on the UNS Gas web site seeking Program information. No new marketing materials were produced during this reporting period.

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UNS GAS MISCELLANEOUS DSM INFORMATION

Description

UNS Gas filed its 2011-2012 Energy Efficiency Implementation Plan ("Plan") on April 4, 2011, in accordance with Section R14-2-2505 of the Gas Utility Energy Efficiency Standards ("EE Standards"). The Plan asks for continuance of existing DSM programs and the approval of new DSM programs, to be implemented either in 2011 or 2012. UNS Gas is proposing the following new Residential, Commercial, Behavioral and Support DSM and Renewable Energy Technology Programs: Home Energy Reports, Multi-Family, Education and Outreach, Behavioral Comprehensive, Codes and Support, and Residential Solar Water Heating.

In order to properly track and report the extensive energy savings and expenses associated with the EE Standards UNS Gas has identified the need for a comprehensive tracking and reporting software solution. In March UNS Gas submitted an RFI to 12 prospective vendors, and received ten responses. After evaluation UNS Gas submitted a Request for Quote to the top two vendors in June. UNS Gas plans to select a vendor during the 3rd quarter of 2011.

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APPENDIX 1 – MARKETING MATERIALS

Existing Home Program:

- Brochure
 - UES-BSH FINAL
- Press Release
- Print Ad
 - UES BSH Print Ad.No QR June 28
- Web Banners
 - UES_BSH_300x260_Banner_Ad_June_9
 - UES_BSH_728x90_Banner_Ad_June_9_pm
 - UESmarketingtile
- Web Content

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APPENDIX 2 – MER REPORTS

- Arizona Energy Office Training, Monitoring, and Evaluation Report – July 2011
- Navigant MER Report

ARIZONA GOVERNOR'S OFFICE of ENERGY POLICY
TRAINING, MONITORING AND EVALUATION REPORT
FISCAL YEAR 2011 ANNUAL REPORT
July 2011
Unisource Gas

Re: Arizona Department of Commerce Contract M034-08

Training and Monitoring for Weatherization

Southwest Building Science Training Center

The Southwest Building Science Training Center (Training Center), operated by the Foundation for Senior Living Home Improvement (FSL) and funded through the OEP and local utilities, provides Arizona low-income weatherization technicians with the knowledge and skills needed to successfully perform diagnostics and repairs on Arizona's housing stock. The Energy Office has entered into agreement with FSL to fund a full time position to develop, coordinate and implement a comprehensive training program at the training center and an administrative assistant position.

The Training Center has received permit approval to expand the training center by developing a multistory training lab that will be used to provide real world hands on training to the new green workforce. Funding has been committed utilizing American Recovery and Reinvestment Act of 2009 (ARRA) funds for the construction of an expanded diagnostic lab. Additional funding is being requested to address the additional requirements set forth by the City of Phoenix Development Services Department that was not accounted for in the beginning of the project. FSL has awarded the design contract to the architecture firm Moran Downes and it is expected that work on the new training lab will start later this year.

Training center courses

<http://www.fsl.org/services/HomeEnergy/hecourses.html>

The Center, in partnership with the Building Performance Institute, Inc. (BPI), provides nationally recognized building science certifications to Arizona's weatherization agencies. All agencies have BPI Certified staff members or contractors that are BPI certified.

In 2010-11 the Training Center has provided almost 10,000 hours of training hours (attendees times class hours) to over 500 course attendees. Since 2009 over 350 contractors have been certified through BPI.

Details on BPI

<http://www.bpi.org/>

The Training Center has implemented a WAP boot camp. The Boot Camp is a five day training that covers the basics of building science, pressure diagnostics, health and safety and residential energy auditing.

The Training Center has implemented the Weatherization (WAP) contractor mentorship program. The mentorship program is designed specifically to bridge the gap between classroom training and field experience by providing on the job training for new contractors. This training is provided by BPI certified contractors with a minimum of three year experience in Home Performance Contracting who have been approved through a review process. OEP will fund 16 hours of mentoring per contractor.

Local agencies have the ability to expand the hours of mentorship per contractor utilizing their training funds.

The Training Center has implemented a Lead Renovator Repair and Painting certification class. On April 22nd 2010 the new EPA Regulations went into effect regarding lead safe work practices. All contractors working on houses Pre-1978 are now required to be registered with the EPA as a lead renovator firm. Any contractors performing work on houses must now have at least one person on their crew that is "Lead Renovator" certified. This certification requires an 8 hour training which involves both a Power Point slide presentation and a "Hands On" section to teach lead safe practices when working on a home with a potential for Lead based paint. Certification requires the participant to pass both a written and field skills test.

The Training Center has implemented an OSHA 30 hour and 10 hour certification course.

The OSHA 30 Hour Construction Industry Outreach Training course is a comprehensive safety program designed for anyone involved in the construction industry. Specifically devised for safety directors, foremen, and field supervisors; the program provides complete information on OSHA compliance issues. OSHA recommends Outreach Training Programs as an orientation to occupational safety and health for workers covered by OSHA 29 CFR 1926

The OSHA 10 Hour Construction Industry Outreach Training Program is intended to provide an entry level construction worker's general awareness on recognizing and preventing hazards on a construction site. OSHA recommends Outreach Training Program courses as an orientation to occupational safety and health for workers covered by OSHA 29 CFR 1926.

The Training Center was also awarded a grant from the Department of Energy to expand the curriculum and tailor it towards the Auditor, Inspector and Crew Members of the technicians in the field. This is a two year grant that will help deliver the skilled workers that will be needed to conduct energy retrofits on existing housing.

Peer-to-Peer Fiscal and Technical Procedures

The Arizona WAP has formed peer-to-peer working groups that allow the fiscal and technical staff from the agencies and the OEP to meet and discuss issues that arise in the program. Agencies are able to share solutions to common problems and other information. These peer-to-peer meetings occur every two months and have been a great arena to discuss any changes or improvement to the program.

Agency Personnel Performance Reviews

A review and monitoring process to evaluate the competency of agency personnel performing the

various requirements of the weatherization program was developed for the statewide weatherization assistance program. Based on this process, additional one-on-one training and technical assistance is provided on an as-needed basis.

Inspections

The Arizona WAP has implemented a monitoring program that focuses on determining areas that need improvement and utilizes the monitoring process to implement needed changes. The areas covered include: auditing, diagnostics, testing and measures completed and program operations. This process begins with the review of 100% of the technical reports for auditing, diagnostics, testing and work completed each month. These reports can highlight instances where opportunities were missed or program requirements were not followed. When there are concerns with some element of the report, a site visit is conducted to address the concerns. At the job site, the diagnostic, testing and work are reviewed to determine if any improvements can be made. A minimum of 20% of the job sites will be visited with visits taking place approximately twice a month. Based on the site visit results, follow-up training and technical assistance is provided to the local agency. For agencies where the technical reports do not show concerns, the site visit consists of monitoring a number of randomly selected homes and reviewing the diagnostics, testing and work completed. These efforts, combined with the training and competence programs, have a goal of ensuring that the program is providing the clients with a high return on Southwest's investment, while maintaining or improving the customers' health and safety.

Utility Bill Analysis

To date, an analysis of 235 homes has been completed on homes utilizing APS, TEP, Unisource Gas and Electric and Southwest Gas utility data. This analysis is ongoing, new data will be updated to these values on a quarterly basis.

Provided are Savings to Investment Ratios (SIR) for total investment from all funding spent (diagnostics, energy measures and health and safety measures) and for energy related measure only (diagnostics and energy measures).

Assumptions

Present value is based on 17.5 years measure life, discount rate of 3% and an utility cost escalation rate of 3%.

Results Summary

The combined SIR of all jobs reviewed to date for funds spent on diagnostics, energy measures and health and safety measures was 1.19. Health and saving represented 13% of expenditures.

The combined SIR of all jobs reviewed to date for funds spent on energy measures and diagnostics was 1.35

The average saving per home reviewed was 2667 kWh and 32 therms of natural gas (gas therms average includes all electric homes).

FINAL

**UNS Gas Demand Side Management
2010 Portfolio Savings Verification
Report**

January 1, 2010-December 31, 2010

Presented to:
UNS Gas
Randy Altergott and Denise Smith

May 6, 2011

Presented by:

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Section 1. Summary

This report presents proposed changes and adjustments to the 2010 energy and demand savings calculations for the UNS Gas (UNSG) residential and commercial DSM programs after completing a savings verification review of reported savings.

Navigant Consulting reviewed the following file as provided by Randy Altergott which summarized preliminary 2010 savings for UNSG:

- 2010_EOY_UNSG_Residential_&_Commercial_Savings-Cost-Benefits-lookup.xlsx

Table 1-1, Table 1-2, and Table 1-3 present summary findings and adjustments for demand and energy savings. Overall, Navigant identified realization rates of 78% for demand savings, 110% for annual and lifetime electric energy savings, and 100% for annual and lifetime therm savings (adjustments averaged to 100%).

Electric savings (only relevant to residential new construction and low-income weatherization programs) provided by UNS Gas were “at meter” demand and energy savings; Navigant verified “at meter” savings and also calculated “at generator” savings, where

$$\text{At generator savings} = \text{At meter savings} * (1 + \text{Line Loss Factor})$$

UNS Electric’s line loss factor of 10.69% was used since UNS Gas does not sell electricity.

Verified demand savings was calculated as non-coincident demand savings multiplied by coincidence factor. Demand savings only applied to residential new construction.

Realization rates are calculated as follows:

$$\text{Realization Rate} = \text{NCI-verified savings values} \div \text{UNSG-reported savings values}$$

Benefit-cost calculations were outside the scope of this task and were not updated.

Table 1-1. UNSG 2010 Therm Savings Summary

Program	Annual Therm Savings				Lifetime Therm Savings			
	Reported	NCI Verified	Realization Rate	Percent of Portfolio (%)	Reported	NCI Verified	Realization Rate	Percent of Portfolio (%)
Residential Programs								
Low-Income Weatherization	3,008	3,008	100%	2%	52,640	52,640	100%	2%
Energy Smart Homes	2,838	2,048	72%	1%	85,144	61,445	72%	2%
Residential HVAC / Efficient Home Heating	78,882	78,882	100%	47%	1,183,227	1,183,227	100%	47%
Commercial Programs								
C&I Facilities Gas Efficiency	81,910	82,695	101%	50%	1,228,648	1,240,429	101%	49%
UNSG Total	166,638	166,633	100%	100%	2,549,659	2,537,741	100%	100%

Table 1-2. UNSG 2010 Demand & Energy Savings Summary at Generator

Program	Demand Savings (MW)				Annual Energy Savings (MMWh)				Lifetime Energy Savings (MMWh)			
	Reported Non-Com. Meter	NCI Com. Verified # Generator	Realization Rate	Percent of Portfolio (%)	Reported # Meter	NCI Verified # Generator	Realization Rate	Percent of Portfolio (%)	Reported # Meter	NCI Verified # Generator	Realization Rate	Percent of Portfolio (%)
Residential Programs												
Low-Income Weatherization	N/A	N/A	N/A	N/A	179	198	111%	98%	3,127	3,461	111%	97%
Energy Smart Homes	0.004	0.003	78%	100%	4.0	3.5	87%	2%	120	104	87%	3%
Residential HVAC / Efficient Home Heating	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Commercial Programs												
C&I Facilities Gas Efficiency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
UNSG Total	0.004	0.003	78%	100%	183	201	110%	100%	3,247	3,565	110%	100%

Table 1-3. UNSG 2010 Demand & Energy Savings Summary at Meter

Program	Demand Savings (MW)				Annual Energy Savings (MMWh)				Lifetime Energy Savings (MMWh)			
	Reported Non-Com. # Meter	NCI Com. Verified # Meter	Realization Rate	Percent of Portfolio (%)	Reported # Meter	NCI Verified # Meter	Realization Rate	Percent of Portfolio (%)	Reported # Meter	NCI Verified # Meter	Realization Rate	Percent of Portfolio (%)
Residential Programs												
Low-Income Weatherization	N/A	N/A	N/A	N/A	179	179	100%	98%	3,127	3,127	100%	97%
Energy Smart Homes	0.004	0.003	71%	100%	4.0	3.1	78%	2%	120	94	78%	3%
Residential HVAC / Efficient Home Heating	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Commercial Programs												
C&I Facilities Gas Efficiency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
UNSG Total	0.004	0.003	71%	100%	183	182	100%	100%	3,247	3,221	99%	100%

The following sections present a summary of major findings of proposed changes and/or confirmation that no changes are required to reported savings.

Section 2. Residential Programs

2.1 Low Income Weatherization

UNS Gas offers rebates to low income customers to weatherize their homes. Savings are derived per ACC directive. There are no demand savings values for this measure. Review of electric annual and lifetime energy savings resulted in a realization rate of 111%. Review of annual and lifetime therms savings resulted in a realization rate of 100%.

A line-loss factor of 10.69% was applied to the electric demand and energy savings to account for transmission and distribution losses from generator to meter. Realization rates were higher than 100% due to the application of this line loss factor.

2.2 Energy Smart Homes

UNS Gas offers rebates to residential customers who construct high efficiency homes. Review of demand savings resulted in higher demand savings and a realization rate of 78%. Review of electric energy savings resulted in lower annual and lifetime energy savings and a realization rate of 87%. Review of therms savings resulted in lower energy savings and a realization rate of 72%.

Review of deemed savings estimates was conducted by assessing baseline and efficient home assumptions provided by the IC. The IC over-estimated the savings of one home – as a result, verified savings resulted in overall lower demand and energy savings at the meter.

A line-loss factor of 10.69% was applied to the electric demand and energy savings to account for transmission and distribution losses from generator to meter. A coincidence factor of 77% was also applied to demand savings in addition to the line-loss factor, thus resulting in lower realization rates.

2.3 Efficient Home Heating

UNS Gas offers rebates for installing gas furnaces in residences. Review of IC-provided deemed savings estimates using values provided in previous year's Measure, Evaluation, and Research (MER) Report resulted in a realization rate of 100%. Thus, all verified savings values and calculations are consistent with 2010 deemed savings values.

2.4 Residential Summary

All together, these changes resulted in realization rates of 78% for demand savings, 110% for annual and lifetime energy savings, 99% for annual therm savings, and 98% for lifetime therm savings.

Table 2-1Error! Reference source not found. below presents Reported (as provided by UNS Gas to Navigant for review, at meter) and Verified Savings (adjusted savings post Navigant review), as well as the Realization Rate (Verified Savings / Reported Savings).

Table 2-1: Residential Program Summary

	Demand Savings (MW)	Annual Energy Savings (MWh)	Annual Therm Savings	Lifetime Energy Savings (MWh)	Lifetime Therm Savings
Reported	.004	183	84,728	3,247	1,321,011
Verified	.003	201	83,938	3,565	1,297,312
Realization Rate	78%	110%	99%	110%	98%

Section 3 Commercial & Industrial (CI) Facilities Gas Efficiency Program

3.1 Boilers

UNS Gas provides rebates for the installation of high efficiency space heating hot water boilers. Review of IC-provided energy savings estimates using the previous year's Measurement, Evaluation, and Research (MER) Report resulted in verified savings estimates that were consistent with deemed savings estimates.

3.2 Furnaces

UNS Gas provides rebates for the installation of high efficiency gas furnaces. Navigant savings review of high efficiency furnace installations in the UNS Gas territory using the previous year's Measurement, Evaluation, and Research (MER) Report identified areas in need of adjustment, which resulted in an overall increase in energy savings and a total realization rate of 106% .

Reported annual therm savings of furnaces installed in the 2nd Quarter were inconsistently calculated as compared with those installed during 3rd and 4th quarters. Thus, Navigant adjusted savings values by applying to the 2nd Quarter inputs the same formula as was used for the 3rd and 4th Quarter inputs. This increased energy savings and resulted in a higher realization rate.

3.3 Storage Water Heaters

UNS Gas provides rebates for the installation of high efficiency storage water heaters. Review of IC-provided energy savings estimates using the previous year's Measurement, Evaluation, and Research (MER) Report resulted in verified savings estimates that were consistent with deemed savings estimates.

3.4 Commercial Summary

All together, these changes resulted in realization rates of 101% for annual and lifetime therm savings.

Table 3-1Error! Reference source not found. below presents Reported (as provided by UNS Gas to Navigant for review, at meter) and Verified Savings (adjusted savings post Navigant review), as well as the Realization Rate (Verified Savings / Reported Savings).

Table 3-1: Commercial Program Summary

	Demand Savings (MW)	Annual Energy Savings (MWh)	Annual Therm Savings	Lifetime Energy Savings (MWh)	Lifetime Therm Savings
Reported	-	-	81,910	-	1,228,648
Verified	-	-	82,695	-	1,240,429
Realization Rate	-	-	101%	-	101%